

Post-Operative Protocol: First Metatarsophalangeal (MTP) Joint Arthrodesis

Dr. Courtney Grimsrud
Department of Orthopedics - Foot & Ankle
CU Medicine

Phase 1

0-2 weeks: NWB, crutches/knee scooter, no ROM of 1st MPT, gentle ankle pumps

2-6 weeks: Heel weight bearing in post-op shoe weaning from crutches between 3-4 weeks, able to pump ankle up and down, use compression (ACE bandage or compression sock) to help with swelling, begin desensitization exercises to help with numbness and tingling (neuropathic symptoms)

Desensitization Exercises

After an injury or surgery, it is common for an area to develop increased sensitivity. This may result in discomfort when everyday objects touch the area.

Desensitization is a treatment to decrease sensitivity by exposing the area to various textures and pressures. Once your incision is healed, you may begin exercises as recommended by your therapist.

Exercises

1. Rub the sensitive area with fabrics of various textures. Begin with softer fabrics and progress to fabrics that are rougher.

Examples of fabrics:

- Cotton balls
- Cotton fabric
- Velcro hook
- Flannel
- Terry cloth
- Velcro loop

2. Tap along the sensitive area using a small dowel, eraser or fingertips. Slowly increase the pressure. Tap the sensitive area into a pillow or cushion.

3. Roll the area along a dowel, or roll of putty, or use an empty deodorant, lip balm or perfume bottle with a roller tip and roll the ball over the area.

4. Using a small massager or electric appliance (shaver/toothbrush), massage along the sensitive area.

5. If your foot/ankle requires desensitization, place your foot/ankle in a container filled with any of the following dry items:

- Rolled oats
- Rice
- Sand
- Dry beans

Perform each of the exercises for 10-15 seconds and progress to 1 minute. Perform every 2 hours during the day.

The more regularly this program is performed, the better the results.

Phase 2

6-8 weeks: full weight bearing as tolerated out of boot in supportive shoes such as Hoka tennis shoes or Birkenstock sandals, ROM in all planes as tolerated. May initiate great toe motion as tolerable however

do not pull or push on toe. Continue with compression and desensitization exercises. Stationary bike, swimming/pool work, other non-impact cardio

8-10 weeks: full weight bearing as tolerated out of boot in supportive shoes, ROM in all planes as tolerated. May continue to work on great toe motion as tolerable however do not pull or push on toe. Continue with compression and desensitization exercises. Work on scar mobilization with vitamin E oil, incorporate heel raises progressing bilateral to unilateral. May begin low impact cardio, bike with increased resistance, elliptical, row ergometer, swimming/pool work, walking program once normalized gait mechanics.

Phase 3

10-12 weeks: full weight bearing as tolerated in supportive shoes. Continue with compression and desensitization exercises. May increase walking program at 12 weeks as functionally appropriate.

Phase 4

12-16+ weeks: Advanced strength and proprioception, linear running, jumping and plyometric progressions, submaximal sport specific progressions – cutting, pivoting, change of direction, acceleration/deceleration. Advanced sport progressions around 3 months.